

## SEQUENCE LISTING

<110> ITAI, Akiko  
 ITAI, Reiko  
 TOMIOKA, Nobuo

<120> Method For Predicting Functions of Protein

<130> P20294

<140> 09/700,708

<141> 2000-11-24

<150> PCT/JP98/02302

<151> 1998-05-26

<160> 6

<170> PatentIn version 3.0

<210> 1

<211> 159

<212> PRT

<213> Escherichia coli

<400> 1

Met Ile Ser Leu Ile Ala Ala Leu Ala Val Asp Arg Val Ile Gly Met  
 1 5 10 15

Glu Asn Ala Met Pro Trp Asn Leu Pro Ala Asp Leu Ala Trp Phe Lys  
 20 25 30

Arg Asn Thr Leu Asp Lys Pro Val Ile Met Gly Arg His Thr Trp Glu  
 35 40 45

Ser Ile Gly Arg Pro Leu Pro Gly Arg Lys Asn Ile Ile Leu Ser Ser  
 50 55 60

Gln Pro Gly Thr Asp Asp Arg Val Thr Trp Val Lys Ser Val Asp Glu  
 65 70 75 80

Ala Ile Ala Ala Cys Gly Asp Val Pro Glu Ile Met Val Ile Gly Gly  
 85 90 95

Gly Arg Val Tyr Glu Gln Phe Leu Pro Lys Ala Gln Lys Leu Tyr Leu  
 100 105 110



Thr His Ile Asp Ala Glu Val Glu Gly Asp Thr His Phe Pro Asp Tyr  
 115 120 125

Glu Pro Asp Asp Trp Glu Ser Val Phe Ser Glu Phe His Asp Ala Asp  
 130 135 140

Ala Gln Asn Ser His Ser Tyr Cys Phe Lys Ile Leu Glu Arg Arg  
 145 150 155

<210> 2  
 <211> 223  
 <212> PRT  
 <213> Bovine

<400> 2

Ile Val Gly Gly Tyr Thr Cys Gly Ala Asn Thr Val Pro Tyr Gln Asx  
 1 5 10 15

Ser Leu Asn Ser Gly Tyr His Phe Cys Gly Gly Ser Leu Ile Asn Ser  
 20 25 30

Gln Trp Val Val Ser Ala Ala His Cys Tyr Lys Ser Gly Ile Gln Val  
 35 40 45

Arg Leu Gly Glu Asp Asn Ile Asn Val Asx Glu Gly Asn Glu Gln Phe  
 50 55 60

Ile Ser Ala Ser Lys Ser Ile Val His Pro Ser Tyr Asn Ser Asn Thr  
 65 70 75 80

Leu Asn Asn Asp Ile Met Leu Ile Lys Leu Lys Ser Ala Ala Ser Leu  
 85 90 95

Asn Ser Arg Val Ala Ser Ile Ser Leu Pro Thr Ser Cys Ala Ser Ala  
 100 105 110

Gly Thr Gln Cys Leu Ile Ser Gly Trp Gly Met Thr Lys Ser Ser Gly  
 115 120 125

Thr Ser Tyr Pro Asp Asx Leu Lys Cys Leu Lys Ala Pro Ile Leu Ser  
 130 135 140

Asp Ser Ser Cys Lys Ser Ala Tyr Pro Gly Gln Ile Thr Ser Asn Met  
 145 150 155 160

Phe Cys Ala Gly Tyr Leu Glu Gly Gly Lys Asp Ser Cys Gln Gly Asp  
 165 170 175



Cys Gly Gly Pro Val Val Cys Ser Gly Lys Leu Gln Gly Ile Val Ser  
                   180                  185                  190

Trp Gly Ser Gly Cys Ala Gln Lys Asn Lys Pro Gly Val Tyr Thr Lys  
           195                  200                  205

Val Cys Asn Tyr Val Ser Trp Ile Lys Gln Thr Ile Ala Ser Asn  
       210                  215                  220

<210> 3  
 <211> 124  
 <212> PRT  
 <213> Bovine

<400> 3

Lys Glu Thr Ala Ala Ala Lys Phe Glu Arg Gln His Met Asp Ser Ser  
 1                  5                  10                  15

Thr Ser Ala Ala Ser Ser Ser Asn Tyr Cys Asn Gln Met Met Lys Ser  
           20                  25                  30

Arg Asn Leu Thr Lys Asp Arg Cys Lys Pro Val Asn Thr Phe Val His  
           35                  40                  45

Glu Ser Leu Ala Asp Val Gln Ala Val Cys Ser Gln Lys Asn Val Ala  
       50                  55                  60

Cys Lys Asn Gly Gln Thr Asn Cys Tyr Gln Ser Tyr Ser Thr Met Ser  
 65                  70                  75                  80

Ile Thr Asp Cys Arg Glu Thr Gly Ser Ser Lys Tyr Pro Asn Cys Ala  
                   85                  90                  95

Tyr Lys Thr Thr Gln Ala Asn Lys His Ile Ile Val Ala Cys Glu Gly  
           100                  105                  110

Asn Pro Tyr Val Pro Val His Phe Asp Ala Ser Val  
       115                  120

<210> 4  
 <211> 153  
 <212> PRT  
 <213> Whale

<400> 4



Val Leu Ser Glu Gly Glu Trp Gln Leu Val Leu His Val Trp Ala Lys  
1 5 10 15

Val Glu Ala Asp Val Ala Gly His Gly Gln Asp Ile Leu Ile Arg Leu  
20 25 30

Phe Lys Ser His Pro Glu Thr Leu Glu Lys Phe Asp Arg Phe Lys His  
35 40 45

Leu Lys Thr Glu Ala Glu Met Lys Ala Ser Glu Asp Leu Lys Lys His  
50 55 60

Gly Val Thr Val Leu Thr Ala Leu Gly Ala Ile Leu Lys Lys Lys Gly  
65 70 75 80

His His Glu Ala Glu Leu Lys Pro Leu Ala Gln Ser His Ala Thr Lys  
85 90 95

His Lys Ile Pro Ile Lys Tyr Leu Glu Phe Ile Ser Glu Ala Ile Ile  
100 105 110

His Val Leu His Ser Arg His Pro Gly Asp Phe Gly Ala Asp Ala Gln  
115 120 125

Gly Ala Met Asn Lys Ala Leu Glu Leu Phe Arg Lys Asp Ile Ala Ala  
130 135 140

Lys Tyr Lys Glu Leu Gly Tyr Gln Gly  
145 150

<210> 5

<211> 186

<212> PRT

<213> Human

<400> 5

Val Gly Ser Leu Asn Cys Ile Val Ala Val Ser Gln Asn Met Gly Ile  
1 5 10 15

Gly Lys Asn Gly Asp Leu Pro Trp Pro Pro Leu Arg Asn Glu Phe Arg  
20 25 30

Tyr Phe Gln Arg Met Thr Thr Thr Ser Ser Val Glu Gly Lys Gln Asn  
35 40 45

Leu Val Ile Met Gly Lys Lys Thr Trp Phe Ser Ile Pro Glu Lys Asn  
50 55 60



Arg Pro Leu Lys Gly Arg Ile Asn Leu Val Leu Ser Arg Glu Leu Lys  
65 70 75 80

Glu Pro Pro Gln Gly Ala His Phe Leu Ser Arg Ser Leu Asp Asp Ala  
85 90 95

Leu Lys Leu Thr Glu Gln Pro Glu Leu Ala Asn Lys Val Asp Met Val  
100 105 110

Trp Ile Val Gly Gly Ser Ser Val Tyr Lys Glu Ala Met Asn His Pro  
115 120 125

Gly His Leu Lys Leu Phe Val Thr Arg Ile Met Gln Asp Phe Glu Ser  
130 135 140

Asp Thr Phe Phe Pro Glu Ile Asp Leu Glu Lys Tyr Lys Leu Leu Pro  
145 150 155 160

Glu Tyr Pro Gly Val Leu Ser Asp Val Gln Glu Glu Lys Gly Ile Lys  
165 170 175

Tyr Lys Phe Glu Val Tyr Glu Lys Asn Asp  
180 185

<210> 6  
<211> 186  
<212> PRT  
<213> Escherichia coli

<400> 6

Val Gly Ser Leu Ser Leu Ile Ala Ala Leu Ala Gln Asn Met Gly Ile  
1 5 10 15

Gly Lys Asn Gly Asp Leu Pro Trp Pro Pro Leu Pro Ala Asp Leu Ala  
20 25 30

Trp Phe Lys Arg Asn Thr Leu Asp Lys Ser Val Glu Gly Lys Gln Asn  
35 40 45

Leu Val Ile Met Gly Arg His Thr Trp Glu Ser Ile Gly Arg Pro Leu  
50 55 60

Pro Gly Arg Lys Gly Arg Ile Asn Leu Val Leu Ser Arg Glu Leu Lys  
65 70 75 80

Glu Pro Pro Gln Gly Ala His Phe Leu Ser Arg Ser Leu Asp Asp Ala



85										90					95				
Leu	Lys	Leu	Thr	Glu	Gln	Pro	Glu	Leu	Ala	Asn	Lys	Val	Asp	Met	Val				
			100					105					110						
Met	Val	Ile	Gly	Gly	Gly	Ser	Val	Tyr	Lys	Glu	Ala	Met	Asn	His	Pro				
		115					120					125							
Gly	His	Leu	Lys	Leu	Tyr	Leu	Thr	His	Ile	Met	Gln	Asp	Phe	Glu	Ser				
	130					135					140								
Asp	Thr	Phe	Phe	Pro	Glu	Ile	Asp	Leu	Glu	Lys	Tyr	Lys	Leu	Leu	Pro				
145					150					155					160				
Glu	Tyr	Pro	Gly	Val	Leu	Ser	Asp	Val	Gln	Glu	Glu	Lys	Gly	Ile	Lys				
			165						170					175					
Tyr	Lys	Phe	Glu	Val	Tyr	Glu	Lys	Asn	Asp										
			180					185											